Malassezia dermatitis with a keratin disorder in a Great green macaw (Ara ambiguus)

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Feather-destructive behavior (feather picking) has been reported as a common and often severe problem of captive psittacine birds. Several potential etiologies have been described including behavioral, ectoparasitism, endoparasitism, nutritional deficiencies, allergic, cutaneous bacterial and fungal diseases, especially Malassezia spp.

A female adult- Great green macaw (Ara ambiguus) presented to a rescue center with alopecia on the chest-abdominal area. A cutaneous scrape was negative for parasites and fungi. Over the following nine weeks there was no feather re-growth and no other clinical or behavioral abnormalities. Unexpectedly, the parrot was found dead and then sent it to necropsy.

Externally, the gross examination revealed an alopecic area of nearly 8.0 cm² located on the chest and abdominal area. Fig. 1

Samples of internal organs as well as four skin biopsies were taken and processed routinely for microscopic investigation and stained with H&E, PAS and GMS. Microscopically, the epidermis showed orthokeratotic hyperkeratosis with multifocal invaginations of laminar keratin and intercellular aggregates of numerous oval, unipolar budding yeast microorganisms of 3-4 µm, which stained positive with PAS and GMS. Figs. 2 and 3.

There were also areas of necrosis involving the epidermis and superficial dermis. Fig. 4.

The dermis also showed hyperemia and infundibular keratosis.

In the literature there are only few reports of cytological findings of microorganisms resembling Malassezia spp associated with feather destructive behavior. Additionally, there is only one case reported in Scarlet macaw with isolation from a pharynx and larynx infection (Breuer-Strosberg, R, 1990). This is the first documented report revealing histopathologically a Malassezia-like microorganisms with a keratin associated disorder and necrotic epidermitis and dermatitis likely due to the feather picking behaviour of this disease.

**Literature recommended:**

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